## Experiment no.7

Aim: Develop a dashboard and reporting tool based on real time social media data.

## Code:

```
import time
import pandas as pd
import streamlit as st
from selenium import webdriver
from selenium.webdriver.chrome.service import Service
from selenium.webdriver.common.by import By
from selenium.webdriver.chrome.options import Options
from webdriver manager.chrome import ChromeDriverManager
from textblob import TextBlob
# --- FUNCTIONS ---
def login_facebook(email, password, driver):
    driver.get("https://www.facebook.com/login")
    time.sleep(3)
    driver.find_element(By.ID, "email").send_keys(email)
    driver.find element(By.ID, "pass").send keys(password)
    driver.find_element(By.NAME, "login").click()
    time.sleep(5)
def scroll_down(driver, scrolls=50, delay=3):
    for _ in range(scrolls):
        driver.execute_script("window.scrollTo(0, document.body.scrollHeight);")
        time.sleep(delay)
def scrape_facebook_posts(page_url, driver, min_posts=10, max_posts=100):
    driver.get(page_url)
    time.sleep(5)
    attempts = 0
    posts data = []
    seen_texts = set()
    while len(posts data) < min posts and attempts < 5:
        scroll_down(driver, scrolls=10, delay=3)
        time.sleep(5)
        posts = driver.find_elements(By.XPATH, "//div[@role='article']")
        print(f" Found {len(posts)} posts on page (Attempt {attempts+1})")
```

```
for post in posts:
            if len(posts_data) >= max_posts:
                break
            try:
                content = post.text.strip()
                if not content:
                    try:
                        content = post.find_element(By.XPATH,
".//div[@dir='auto']").text.strip()
                    except:
                        try:
                            content = post.find_element(By.XPATH,
".//span").text.strip()
                        except:
                            content = "No text"
                if content not in seen_texts and content != "No text":
                    seen texts.add(content)
                    blob = TextBlob(content)
                    polarity = blob.sentiment.polarity
                    subjectivity = blob.sentiment.subjectivity
                    posts data.append({
                        "Post Content": content,
                        "Sentiment Polarity": polarity,
                        "Sentiment Subjectivity": subjectivity
                    })
            except Exception as e:
                print("Error extracting a post:", e)
        attempts += 1
    return pd.DataFrame(posts_data)
def create_dashboard(df):
    st.title(" Facebook Social Media Analytics Dashboard")
    st.write("Extracted Facebook Posts with Sentiment Analysis:")
    st.table(df)
    st.write("Data saved in facebook_cars_sentiment_cleaned.csv")
# --- MAIN EXECUTION ---
if __name__ == "__main__":
    FB EMAIL = "your email here"
    FB_PASSWORD = "your_password_here"
    PAGE_URL = "https://www.facebook.com/BMW"
    chrome options = Options()
```

## **Output:**

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\siddh\OneDrive\Desktop\sma practical7> streamlit run fb\_scraper.py

You can now view your Streamlit app in your browser.

Local URL: http://localhost:8501 Network URL: http://192.168.0.104:8501

DevTools listening on ws://127.0.0.1:49212/devtools/browser/cbfa70f7-7ad5-4b60-8935-c633b92d97b2



## Facebook Social Media Analytics Dashboard

Extracted Facebook Posts with Sentiment Analysis:

	Post Content	Sentim ent Polarity	Sentime nt Subjecti vity
0	BMW 10h · Charged and ready, crafted to stand out. Radovan Hlôška fotograf The BMW i4. 100% electric. All reactions: 1.9K 98 69 Like Comment View more comments Vivaan Punjabi BMW you are The best 11m View all 2 replies	0.5667	0.4333
1	Vivaan Punjabi BMW you are The best 11m	1.0000	0.3000
2	BMW 10h · Charged and ready, crafted to stand out. Radovan Hlôška fotograf The BMW i4. 100% electric. All reactions: 1.9K 98 69 Like Comment View more comments Vivaan Punjabi BMW you are The best 12m View all 2 replies	0.5667	0.4333
3	Vivaan Punjabi BMW you are The best 12m	1.0000	0.3000
4	BMW 10h · Charged and ready, crafted to stand out. Radovan Hlôška fotograf The BMW i4. 100% electric. All reactions: 1.9K 98 69 Like Comment View more comments Vivaan Punjabi BMW you are The best 13m View all 2 replies	0.5667	0.4333
5	Vivaan Punjabi BMW you are The best 13m	1.0000	0.3000
6	BMW 10h · Charged and ready, crafted to stand out. Radovan Hlôška fotograf The BMW i4. 100% electric. All reactions: 1.9K 98 69 Like Comment View more comments Vivaan Punjabi BMW you are The best 14m View all 2 replies	0.5667	0.4333
7	Vivaan Punjabi BMW you are The best 14m	1.0000	0.3000

Data saved in facebook\_cars\_sentiment\_cleaned.csv